

Radiochemical Measurements Conference

Ala Moana Hotel

Honolulu, Hawaii

Final Program

Sunday Workshops

Day/Time	Convenors	Affiliation	Title
7:30am	Continental Breakfast (Sponsored by Severn Trent Laboratories) – Pakalana/Anthurium Registration – Outside Carnation		
8:30am Plumeria Rm.	Mary Wisdom, Catherine S. Klusek	NAREL, EML	QA/QC in the real world – Part 1
10:00-10:30am	Coffee Break (Sponsored by Severn Trent Laboratories)-- Pakalana/Anthurium		
10:30am Plumeria Rm.	Mary Wisdom, Catherine S. Klusek	NAREL, EML	QA/QC in the real world – Part 2
10:30am Carnation	Manohar Hotchandani	LLNL	DL/MDA
12:00-1:30	Lunch [on your own]		
1:30pm Plumeria Rm.	Guthrie Miller, Tom T. Little	LANL	New ways to report counting measurement results
1:30pm Carnation Rm	Mike Schultz Doug Van Cleef	Ortec Protean Inst. Corp. DurrIDGE Co., Inc.	Advances in Nuclear Instrumentation
3:00pm	Coffee Break (Sponsored by Severn Trent Laboratories)-- Pakalana/Anthurium		
3:30pm Plumeria Rm.	Barbara Gillespie, Matt Lardy	STL Richland	Instrument calibrations
3:30pm Carnation Rm	Ged Payne	ORNL	ORNL Intercomparison Studies Program users meeting
5:00pm	Adjourn		
7-11pm Anthurium	Work group meeting		ANSI phantom
7-11pm Pakalana Rm.	Work group meeting		DOE/RTP

Radiochemical Measurements Conference

Ala Moana Hotel

Honolulu, Hawaii

Monday

Workshops/Posters

Day/Time	Convenors	Affiliation	Title
7:30am	Continental Breakfast (Sponsored by Eichrom Technologies, Inc.) – Anthurium Room Registration – Outside Carnation Room		
8:30am Plumeria Rm.	Stan Morton, David McCurdy	DOELAP, Duke Engineering	MARLAP – Part 1
8:30am Carnation Rm	Bud Sielaff	Canberra Industries, Inc. Cogema Company	Productivity advances in laboratory sample counting
10:00-10:30am	Coffee Break (Sponsored by Eichrom Technologies, Inc.)– Pakalana/Anthurium		
10:30am Plumeria Rm.	Stan Morton, David McCurdy	DOELAP, Duke Engineering	MARLAP – Part 2
10:30am Carnation Rm	Lawrence E. Jassin	Eichrom Tech., Inc.	The pursuit of continuous improvement; methods, and product quality
10:30 am Hibiscus I	Exhibitor set-up		
12:00-1:30	Lunch [on your own]		
1:30pm Carnation Rm	Anthony C. James	ACJ & Associates, Inc.	IMBA Expert USDOE – Edition and related developments
1:30-3:00pm Pre-Function	Poster set-up: Pre-Function Area		
3:00-5:00pm Hibiscus I	Exhibits: Hibiscus I		
3:00pm Pre-Function Area	Poster Session (with refreshments) Chairs: Henrieta Dulaiova, Svetlana Nour <ul style="list-style-type: none"> • Posters should be set up no later than 3:00 pm Monday • Boards will be numbered corresponding to poster numbers in this program • All authors should stand by their display for questions, discussion during this period • Posters will remain up for viewing until after coffee break Wednesday afternoon • Refreshments provided by Eichrom Technologies, Inc. 		
6:00pm	Vendor Reception – Hibiscus I and Garden Lanai (Sponsored by Eberline Services and Perkin-Elmer Life Sciences)		

Conference Program

Hibiscus Ballroom II

Tuesday AM

Radiochemistry-1/2, Chairs: Ken Inn, Russ Takata

Day/Time	Author/Co-Authors	Affiliation	Title
7:30-8:30am	Continental Breakfast (Sponsored by General Engineering Laboratories)– Hibiscus II Registration – Outside Hibiscus II		
8:30am	Governor or Representative	State of Hawaii	Welcome
8:45-9:30am	Keynote Speaker E. Philip Horwitz	PG Research Foundation, Inc.	Alpha Emitters -- From Earth to Moon to Man
9:30	C. Martin Johnson, Jr., <u>Donna M. Beals</u> , David E. McCurdy, and Norbert W. Golchert	Science Applications International Corporation	The role of ASTM in Radioanalytical method development and promulgation
9:50	<u>Michael Schultz</u> , William Burnett, Monika Takacs, James Alberts, and Tom Hinton	PerkinElmer Instruments, Florida State University, University of Georgia, Savannah River Ecology Laboratory	Ultra-filtration studies of actinides americium, plutonium, and thorium in a seasonally-anoxic lake in the southeastern United States: seasonal cycling and association with colloids
10:10-10:40am	Coffee Break (Sponsored by General Engineering Laboratories)-- Pre-Function Area		
<i>Radiochemistry-3/4, Chairs: Gary Kramer, Shigeo Uchida</i>			
10:40	<u>Kimberly Kaleas</u> , Zhichao Lin, K. G. W. Inn, and Robert Vocke	University of California- Berkeley, NIST	Study of Pu ion productions in thermal ionization mass spectrometry for plutonium isotopic ratio measurements
11:00	<u>Jeffrey C. Whyte</u> , R.K. Ungar, A. DeSilva, and K. T. Henderson	Health Canada, Radiation Protection Bureau	Low levels ⁹⁰ Sr (Cerenkov) and ²²⁶ Ra (alpha/beta LSC) analysis in environmental samples using an automated chromatography system and LSC
11:20	<u>Shigeo Uchida</u> and Keiko Tagami	National Institute of Radiological Sciences, Japan	Low-level Technetium-99 determination in soil samples by ICP- MS
11:40	<u>P. Evan Dresel</u> , John C. Evans, Orville T. Farmer III, Gregory C. Eiden	Pacific Northwest National Laboratory	Detection of fission-altered isotopes ratios in groundwater at the US Department of Energy's Hanford site using inductively coupled plasma- mass spectrometry
12:00-1:30 Garden Lanai	Conference Lunch (Sponsored by State of Hawaii NRIAQ) Guest Speaker, Lloyd Currie, NIST On the Radiocarbon Age of the Shroud of Turin: metrological controversy, creative hypotheses, and the emerging discipline of 'molecular dating'		

Conference Program

Hibiscus Ballroom II

Tuesday PM

Bioassay-1/2, Chairs: Virgene Ideker, Jost Eikenberg

Day/Time	Author/Co-Authors	Affiliation	Title
1:30pm	<u>Joel L. Webb</u> , G. Kramer, S. Allen, M. Ennis, R. Guilmette, T. Lynch, and D. Schoep	Carlsbad Environmental Monitoring and Research Center	An evaluation of lung counting background at six facilities using an 80-mm diameter germanium detector: a collaborative in vivo study
1:50pm	<u>T. Hamilton</u> , T. Brown, A. Marchetti, J. McAninch, C. Cox, M. Hotchandani, D. Hickman, J. Brunk	Lawrence Livermore National Laboratory	Use of accelerated mass spectrometry for plutonium urinalysis
2:10pm	<u>J. Stan Morton</u> , Tansy L. Taylor, Tracy M. Jue, and Robert M. Loesch	Radiological and Environmental Sciences Laboratory, U.S. DOE	Assessment of performance-evaluation data derived from radiobioassay DOELAP
2:30pm	<u>Gary H. Kramer</u> , Linda C. Burns, and Steven Guerriere	Human Monitoring Laboratory, Radiation Protection Bureau, Canada	Monte Carlo simulation of a scanning whole body counter and the effect of BOMAB phantom size on the calibration
2:50-3:20pm	Coffee Break (Sponsored by General Engineering Laboratories)– Pre-Function Area		
<i>Bioassay-3/4, Chairs: Rod Melgard, Peter Lindahl</i>			
3:20pm	<u>Thomas L. Rucker</u> , Jeffrey D. Slack, Kenneth N. Fleming, Stanley W. Stevens, Ronnie M. Moody, C. Martin Johnson, Jr., and Steve W. Green	Science Applications International Corporation	Uranium lung solubility class selection at Bechtel Jacobs Company LLC - operated facilities
3:40pm	<u>Steven E. Bohrer</u> and David S. Sill	Radiological and Environmental Sciences Laboratory	Determination of the actinides in fecal and urine samples with total sample dissolution using a lithium metaborate fusion
4:00pm	<u>H. Spitz</u> , A. Robbins, D. Stempfley, J. Hudson, D. Johnson	University of Cincinnati	A new technique for performing in vivo efficiency calibration measurements suitable for chestwall thicknesses in excess of 4 cm
4:20pm	<u>R. K. Shah</u> , D. C. Shepley, S. MacLean,	Lawrence Livermore National Laboratory	Quality control of a new uranium bioassay method
7:00-11:00 pm Anthurium	Work group meeting		ANSI 13.30
7:00-11:00 pm Pakalana Rm	Work group meeting		ASTM D19

Conference Program Hibiscus Ballroom II Wednesday AM

Radiochemistry-5/6, Chairs: Bill Burnett, Carol Luskus

Day/Time	Author/Co-Authors	Affiliation	Title
7:30-8:00am	Continental Breakfast (Sponsored by PerkinElmer Instruments – ORTEC)– Hibiscus II Registration – Outside Hibiscus II		
8:00am	<u>R. Arimoto</u> , M. Conley, J. Webb, T. Kirchner, B. Stewart, D. Schoep, and M. Walthall	Carlsbad Environmental Monitoring and Research Center, New Mexico State University	^{239,240} Pu and inorganic substances in aerosols from the vicinity of the Waste Isolation Pilot Plant: the importance of resuspension
8:20am	<u>Barry Stewart</u> and Carl Schloesslin	Carlsbad Environmental Monitoring and Research Center	How rigorous is rare earth fluoride micro-coprecipitation?
8:40am	<u>Jost Eikenberg</u> , Sixto Bajo, J. Hitz, and L. Wyer	Division for Radiation Protection, Paul Scherrer Institute, Switzerland	Environmental radionuclide analyses around nuclear installations in northern Switzerland
9:00am	Guebuem Kim, Bill Burnett, and <u>Henrieta Dulaiova</u>	Department of Oceanography, Florida State University	Measurement of ²²⁴ Ra and ²²⁶ Ra activities in natural waters using a radon-in-air monitor
9:20am	Derek Lane-Smith	Durridge Company Inc.	Impact of realtime alpha spectroscopy on the measurement of radium and radon isotopes in water
9:40-10:10am	Coffee Break (Sponsored by PerkinElmer Instruments – ORTEC)– Pre-Function Area		
<i>Radiochemistry-7/8, Chairs: Joel Webb, Carolyn Wong</i>			
10:10am	David S. Sill	Radiological and Environmental Sciences Laboratory, U.S. DOE	Preparation and testing of soil standards containing known activities of homogeneously distributed radionuclides
10:30am	<u>Carolyn T. Wong</u> , V. M. Soliman, S. Kusum Perera	California Department of Health Services	Gross alpha by liquid scintillation
10:50am	Jon Martin	British Nuclear Fuels Limited	Simulation and assessment of the performance characteristics of a high capacity ion-exchange system for the decontamination of spent fuel cooling-pool water
11:10am	Anil Thakkar	Eichrom Technologies, Inc.	A rapid determination of ²²⁶ Ra and ²²⁴ Ra via alpha spectrometry using extraction chromatography
11:30am	Bryan B. Bandong, Alan M. Volpe, Bradley K. Esser, and Gregory M. Bianchini	Lawrence Livermore National Laboratory	Pre-concentration & measurement of low levels of gamma-ray emitting radioisotopes in coastal waters
11:50am	Discussion		
12:00-1:30	Lunch [on your own]		

Conference Program

Hibiscus Ballroom II

Wednesday PM

QC-1/2, Chairs: Donovan Porterfield, Bob Shannon

Day/Time	Author/Co-Authors	Affiliation	Title
1:30pm	<u>Diana Decker</u> , Peter C. Lindahl, Nancy L. Koski, Deward W. Efurd, Robert Steiner, Donald E. Dry, and Sandra E. Wagner	Los Alamos National Laboratory	LANL Chemistry Division Bioassay Project Analytical Chemistry Laboratory participation in inter-laboratory performance evaluation programs
1:50pm	Allen Brodsky, Daniel G. Martinez, and W. Jeffrey Klemm	Science Applications International Corporation	Uncertainty analysis of analytical results when errors are not normally distributed
2:10pm	William E. Potter	PMB #492, CA, USA	Exact confidence intervals for paired counting utilizing modified bessel functions of integral order
2:30pm	<u>David E. McCurdy</u> , Zhichao Lin, and Kenneth G.W. Inn	Duke Engineering and Services; NIST	Second interlaboratory comparison for the analysis of Pu-239 in synthetic urine at the μBq (~100 aCi) level - a work in progress
2:50-3:20pm	Coffee Break (Sponsored by PerkinElmer Instruments – ORTEC) – Pre-Function Area [all exhibits and posters should be removed after break]		
<i>QC-3/4, Chairs: Henry Spitz, Dave McCurdy</i>			
3:20pm	<u>R. T. Shannon</u> , L. J. Davis, R. M. Kinney, and K. I. Mullen	Acculabs, Inc., Los Alamos National Laboratory	Sources of bias and uncertainty associated with gross alpha and beta analysis
3:40pm	Mary C Verwolf	NAMP Program Manager, DOE-ID	Integrated national analytical management programs for quality assurance of DOE environmental data
4:00pm	<u>Stacey M. Loyland Asbury</u> , Raymond Bath, Mary Verwolf, David S. Sill, Kenneth G. W. Inn, and Dave McCurdy	USDOE Environmental Measurements Laboratory, DOE-Idaho, NIST, Duke Engineering Laboratory	Radiological traceability program
4:20pm	<u>Kenneth G. M. Inn</u> , Zhichao Lin, Zhongyu Wu, and Ciara McMahan	NIST	The NIST policy on traceability as related to radionuclide measurements
4:40pm	Virgene Ideker	Rocky Flats Closure Site	Through the eyes of an auditor
6:30-9:30pm Garden Lanai	Conference Dinner, Awards Presentation, Business Meeting Chairs: Stan Morton, Mike Fern		

Conference Program

Hibiscus Ballroom II

Thursday AM

Bioassay-5/6, Chairs: Anna Berne, Tom Rucker

Day/Time	Author/Co-Authors	Affiliation	Title
7:30-8:00am	Continental Breakfast (Sponsored by Canberra Industries) Hibiscus II		
8:00	<u>C. Frechou</u> , D. Calmet, X. Bertho, A. Gaudry	IPSN/DPRE/SERNAT and CEA/DSM/DRECAM/LPS	¹²⁹ I/ ¹²⁷ I ratio measurements in bovine thyroids from the North Cotentin area
8:20am	Samuel E. Glover	Washington State University	Performance assessment of laboratories performing uranium analyses on Gulf War Veterans
8:40am	<u>K. Takasaki</u> , O. Kurihara, T. Momose, T. Tasaki, Y. Maruo, and K. Shinohara	Japan Nuclear Cycle Development Institute (JNC)	Early faecal excretion of inhaled plutonium
9:00am	<u>J. Kuwabara</u> , S. Tolmachyov, H. Noguchi	Japan Atomic Energy Research Institute	Rapid Pu urinalysis method by flow injection detection system
9:20am	Rod Melgard and <u>Melissa Mannion</u>	Eberline Services	ANSI 13.30 and the law of unintended consequences
9:40-10:10am	Coffee Break (Sponsored by Canberra Industries) Hibiscus II		
<i>Bioassay-5/6, Chairs: Sandra Wagner, Jean Louis Genicot</i>			
10:10am	<u>Jean Louis Genicot</u>	Radiation Protection SCK.CEN, Belgium	The reduction of the detection limits in <i>in vivo</i> measurements by using energy adapted detector arrays
10:30am	<u>Anita R. Bhatt</u> , Mitchell R. Greenhalgh, and Christopher P. Oertel	Idaho National Engineering and Environmental Laboratory	Determination of tritium in urine samples and validity of results
10:50am	<u>M.J. Ely</u> , Gerard Payne, Eugene Porter	RFETS Analytical Services, Oak Ridge Intercomparison Studies Program, RFETS Internal Dosimetry	Actinide analysis of unpreserved urine samples
11:10am	<u>Peter C. Lindahl</u> , Nancy L. Koski, Richard D. Robinson, Deward W. Efurud, Robert Steiner, Donald E. Dry, Clarence J. Duffy, and Sandra E. Wagner	Los Alamos National Laboratory	Using quality control sample results in the process of improving method performance for the determination of plutonium in urine
11:30am	<u>Robert Rosson</u> , Bernd Kahn, Jeff Lahr, and Dave Crowe	Environmental Resources Center Georgia Institute of Technology	Measurement of ²²⁸ Ra and ²²⁶ Ra by gamma-Ray spectrometry in drinking water
11:50am	Concluding Remarks		
12:00pm	Conference Adjourns		

Radiochemical Measurements Conference

Poster Session

Pre-Function Area

Honolulu, Hawaii

List of Poster Presentations, Chairs: Henrieta Dulaiova, Svetlana Nour

Poster #	Author/Co-Authors	Affiliation	Title
1	<u>Joel L. Webb</u> , G. Kramer, S. Allen, and D. Schoep	Carlsbad Environmental Monitoring and Research Center	Comparison of the LLNL and JAERI phantoms using four 80-mm diameter germanium detectors
2	<u>Robert Litman</u> and David A. Robinson	North Atlantic Energy Services Corporation	Where did the tritium come from?
3	<u>Guthrie Miller</u> , Harry F. Martz, Tom T. Little, and Ray Guilmette	Los Alamos National Laboratory	Exact likelihood functions for measurements involving counting
4	<u>Gary H. Kramer</u> , Steven Guerriere, and Kenneth G. W. Inn	Human Monitoring Laboratory, Radiation Protection Bureau, Canada	Comparison of sliced lungs with whole lung sets for a Torso Phantom measured with Ge detectors using MCNP and autoradiography
5	K. Aleissa, O. Al-Dayel, J. Hefne, and E. Shabana	King Abdulaziz City for Science and Technology, Saudi Arabia	Investigation of bottled water quality in Saudi Arabia
6	<u>M. T. Valentini Ganzerli</u> , V. Crespi Caramella, L. Maggi	Centro di radiochimica ed Analisi per Attivazione del C.N.R. e Dipartimento di Chimica Generale dell'Universita, Italy	Adsorption of actinide ions from natural waters on specific adsorbers especially designed
7	V. S. Kondrashov and S. J. Rothenberg <u>withdrawn</u>	Toxicology Research Laboratory Charles R.Drew University Los Angeles	The graphic user interface for in vivo XRF bone lead analysis
8	Ryszard Bojanowski and Zbigniew Radecki	Institute of Oceanology (Poland), International Atomic Energy Agency (Vienna)	Preparation of ²²⁶ Ra sources from solid samples for alpha spectrometry in less than one hour
9	Raymond J. Lagomarsino	Environmenat Measurements Laboratory, US DOE	A template for the calculation of Strontium-90 activity
10	<u>Kil Yong Lee</u> , Yoon Yeol Yoon, Myung Kwon Yang, Sang Kwon Shim, and Bum Kyoung Seo	Korea Institute of Geoscience & Mineral Resources	Preparation and analysis of plastic reference materials for elemental analysis
11	Yoon Yeol Yoon, Soo Young Cho, and <u>Kil Yong Lee</u>	Korea Institute of Geoscience & Mineral Resources	Determination of uranium in groundwater samples by photon electron rejecting alpha liquid scintillation spectrometry

Poster Presentations

Poster #	Author/Co-Authors	Affiliation	Title
12	Jeng-Jong Wang, Shing-Fa Fang, and Tzu-Wen Wang	Institute of Nuclear Energy Research, Taiwan	Sequential isotopic determination of plutonium, americium, uranium, and strontium in soil sample
13	Bum Kyoung Seo, Kil Yong Lee, and Yoon Yeol Yoon	Korea Institute of Geoscience & Mineral Resources	Simultaneous analysis of radium and radon in groundwater samples by HPGE detector
14	T. K. Li, M. Watanabe, S. Sato, S. Jitsukata, T. Kuno, H. Ikeda, T. Hiayama	Los Alamos National Laboratory, Japan Nuclear Cycle Development Institute	Separation of plutonium and uranium in spent-fuel dissolver solutions by extraction chromatography
15	Patrick I. Foy	Los Alamos National Laboratory	Mass spectrometer modernization or teaching an old dog new tricks
16	F. Keith Tomlinson, Thomas A. Dugan, Hobert W. Jones	Fluor Fernald Inc., OH	Radioanalytical laboratory performance assessment using performance evaluation samples
17	Shing-Fa Fang, Jeng-Jong Wang, Tzu-Wen Wang, and Jih-Hung Chiu	Institute of Nuclear Energy Research, Taiwan	Comparison of alpha/beta separation performance of commercially available scintillation cocktails counting by Quantulus™ 1220 liquid scintillation counter
18	Zhongyu Wu and Kenneth G. W. Inn	NIST	NIST virtual gamma spectrometry systems: a comparison of counting efficiencies from measurements and Monte Carlo simulations
19	N. M. Mukhamedshina, M. Kadirova, A. A. Mirsagatova, N. Norboev, M. Amanov, T. Khushvaktov	Uzbek Academy of Sciences, Tashkent State Agrarian University, Uzbekistan	Application of INAA and X-ray analysis to study environmental samples
20	Keiko Tagami and Shigeo Uchida	National Institute of Radiological Sciences, Japan	Determination of Rhenium in environmental samples using an extraction chromatographic resin and ICP-MS
21	Ciara A. McMahon, Kenneth G. W. Inn, William C. Burnett, and Michael K. Schultz	NIST, Florida State University, PerkinElmer Instruments	Development of the NIST standard sequential extraction protocol-optimization for freshwater lake sediment SRM
22	D. S. Khamrayeva, T. Akyuz, S. Akyuz	Institute of Nuclear Physics (Uzbekistan), Cekmece Nuclear Research and Training Center, Istanbul University (Turkey)	Radioisotope excited x-ray fluorescence and neutron activation analyses of surface sediments collected along the Turkish Black Sea coast
23	George H. Brooks, Donivan Porterfield, and Susan Radzinski	Los Alamos National Laboratory	The effectiveness of solid-state CZT vs low-resolution NaI(Tl) detector types upon the active measurement of americium and plutonium in aqueous waste streams

Poster Presentations

Poster #	Author/Co-Authors	Affiliation	Title
24	K. J. Hofstetter and <u>D. M. Beals</u>	Westinghouse Savannah River Company, Savannah River Technology Center	Simplified model for in-situ survey of gamma activity in soil
25	Anita R. Bhatt	Idaho National Engineering and Environmental Laboratory	Choosing the right tracer for special bioassay analyses
26	David Hickman, <u>Cindy Conrado</u> , Ericson Arelong, Simon Langinbelik, Terry Hamilton	Lawrence Livermore National Laboratory	An assessment of cesium-137 exposure in Rongelap Island resettlement workers based on whole body counting (1999-2000)
27	S. M. Almeida, M. M. Farinha, <u>M. C. Freitas</u> , M. Reis, O. Oliveira	Instituto Tecnológico e Nuclear, Portugal	Intercomparison INAA/PIXE for the elemental concentrations of zinc, iron and potassium in air particulate matter
28	<u>M. G. Cantaloub</u> , L. F. Wardrobe, and T. J. Southworth	WRAP Facility MSIN T4-52, Fluor Hanford	Transuranic waste assaying at Hanford's waste receiving and process facility
29	Samuel E. Glover	Washington State University	Application of combined alpha spectrometry and neutron activation analysis for the determination of isotopic thorium in urine
30	<u>Hamzah A.</u> , Sarmani S., and Liow J. Y.	University Kebangsaan, Malaysia	Elemental analysis of Chinese traditional herbs using instrumental neutron activation analysis technique
31	J. L. Anderson, <u>C. W. Bloom</u> , E. M. Brackett, D. A. Dooley	MJW Corporation	Mound laboratory historical internal dose reconstruction
32	Robert E. Steiner, Clarence J. Duffy, Deward W. Efurd, Kimberly Israel, Peter Lindahl, Fred Roensch, and Sandra E. Wagner	Los Alamos National Laboratory	A comparison of pre- and post-Cerro Grande fire results for thermal ionization mass spectrometry (TIMS) bioassay analyses
33	Deward W. Efurd, Diana L. Kottmann, Stephanie Boone, Fred R. Roensch, Sandra E. Wagner, Dawn Lewis, Clarence J. Duffy, Robert E. Steiner, Donald E. Dry, Peter C. Lindahl, Nancy L. Koski, and Diana L. Decker	Los Alamos National Laboratory, Chemistry Division	Performance of chemical processing and analytical measurements for the plutonium determination in support of the Los Alamos National Laboratory Bioassay Program before and after the Cerro Grande Fire
34	Sandra E. Wagner	Los Alamos National Laboratory	Clean chemistry/mass spectrometry facility refurbishment post-Cerro Grande Fire, Los Alamos National Laboratory
35	<u>Svetlana Nour</u> , Bill Burnett	Florida State University	Determination of ^{228}Ra in natural waters via Diphonix Resin

Poster Presentations

Poster #	Author/Co-Authors	Affiliation	Title
36	<u>Henry Spitz</u> , James Neton, Jeff Hudson, Daniel Stempfley	University of Cincinnati	Application of a matrix calibration method for in vivo measurement of ^{241}Am in the lungs, liver, and skeleton
37	Terry McKibbin	Environmental Resource Associates	A USEPA National Primary Drinking Water Certified Proficiency Testing Provider for radionuclides in water
38	<u>Heidi A. Walk</u> , Melinda P. Krahenbuhl	University of Utah Nuclear Engineering Program	Using fission track analysis on plasma samples
39	<u>Gregory C. Eiden</u> , Orville T. Farmer III, P. Evan Dresel, and John C. Evans	Pacific Northwest National Laboratory, WA	Chemical resolution mass spectrometry: on-line separation chemistry for radionuclides inside a mass spectrometer
40	<u>D. Calmet</u> , N. Coreau, P. Germain, F. Goutelard, P. Letessier, C. Frechou, D. Maro	IPSN/DIR/DDP and CEA/CEN/DPC	Chlorine-36 measurement in the near-field environment of a spent nuclear fuel reprocessing plant
41	Richard Ames, Elizabeth Bluhm, Doug Way, Stephen Schreiber, Kent Abney	Los Alamos National Laboratory	Determination of stainless steel membrane characteristics using radionuclide tracer materials under dilute aqueous conditions
42	<u>Orville T. Farmer III</u> , P. Evan Dresel, Gregory C. Eiden, John C. Evans, Richard C. Hanlen	PNL	Detection limits for ICP-MS long-lived and fission-altered isotope ratios in groundwater at the US Department of Energy's Hanford Site
43	<u>Silva P. S. C.</u> , Mazzilli B. P., and Favaro D. I. T.	Instituto de Pesquisas Energeticas e Nucleares, Brasil	Chemical and radiological characterization of Santos estuary sediments
44	T. L. Rucker, K. N. Fleming, W. W. Lilly, and J. R. Moos	Science Applications International Corporation, TN, Southeast Missouri State University, Science Applications International Corporation, MO	Bioassay to determine exposures from a historical americium spill
45	<u>A.S. Abdel-Halim</u> and E. Metwally	Atomic Energy Authority, Cairo	Environmental pollution analytical study around inhabitant industrial area near Cairo, Egypt
46	David P. Hickman and <u>Sandi Fisher</u>	Lawrence Livermore National Laboratory	Enhancements in the evaluation of plutonium deposited in lung tissue
47	A. M. G. Pacheco, <u>M. C. Freitas</u> , M. A. Reis, M. G. Ventura, L. I. C. Barros	Technical University of Lisbon, Nuclear and Technological Institute, Portugal	An assessment of the response of tree bark and epiphytic lichens to elemental availability at ground level through nuclear techniques

Poster Presentations

Poster #	Author/Co-Authors	Affiliation	Title
48	T.A. Brown, A.A. Marchetti, T.F. Hamilton, J. Knezovich, and J.E. McAninch	Lawrence Livermore National Laboratory	Pu measurements by accelerator mass spectrometry at LLNL
49	Ulrika Nygren, Asa Tjarnhage, and Daniela L. Stricklin	NBS Analysis, FOI, Swedish Total Defense Research Institute	Application of low energy gamma spectrometry in rapid actinide analysis for emergency preparedness
50	<u>W. H. Johnson</u> , C. T. Bastain, T. W. Smith	University of Nevada	Comparison of proposed calibration matrices for gross alpha and beta particle radioactivity in high TDS waters
51	E. Metwally, A. S. Abdel-Halim	Atomic Energy Authority, Cairo	Determination of the elemental content in cigarettes by instrumental neutron activation analysis
52	D.P. DiPrete, C.C. DiPrete, and R.A. Sigg	Westinghouse Savannah River Company	Suitability of available chromatographic disks towards measurement of Tc-99 in Savannah River Site high activity waste
53	Petro M. Gopych	Kharkiv National University	Line spectral processing, human memory, linguistic, and psychology problems
54	<u>Anna Berne</u> and Svetlana Bouzdalkina	U.S. Department of Energy, Research Institute of Radiology (Belarus)	Evaluation of soil samples for ²³⁸ Pu, ^{239/240} Pu, ²⁴¹ Am and ⁹⁰ Sr: an international cooperative training exercise
55	Lori Johnson	Lawrence Livermore National Laboratory	Does this mean that I have to fill out an NCR?